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FIG.1

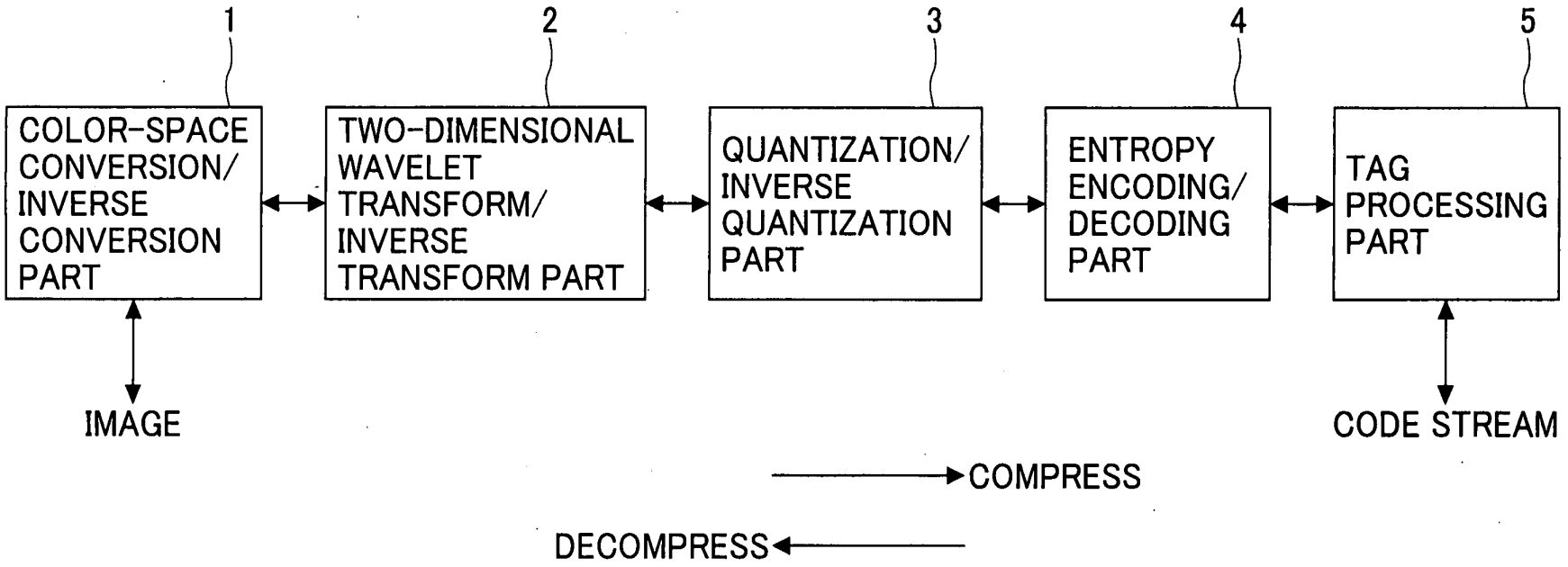
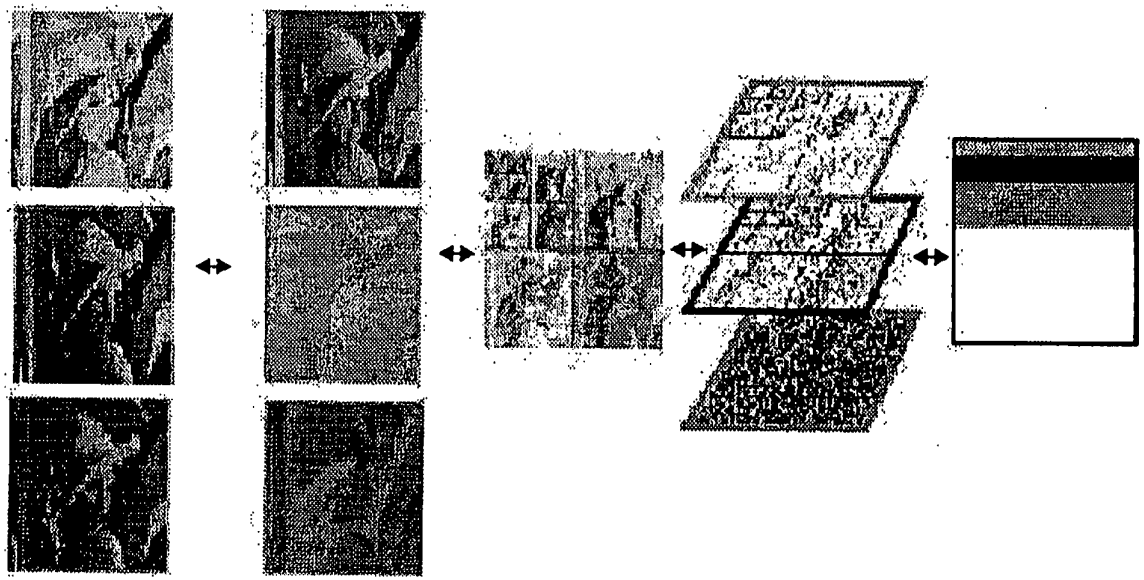

1
2
3
4
5
COLOR-SPACE CONVERSION/ INVERSE CONVERSION PART
TWO-DIMENSIONAL WAVELET TRANSFORM/ INVERSE TRANSFORM PART
QUANTIZATION/ INVERSE QUANTIZATION PART
ENTROPY ENCODING/ DECODING PART
TAG PROCESSING PART
IMAGE
CODE STREAM
COMPRESS
DECOMPRESS

FIG.2



ORIGINAL RGB IMAGE (S1)

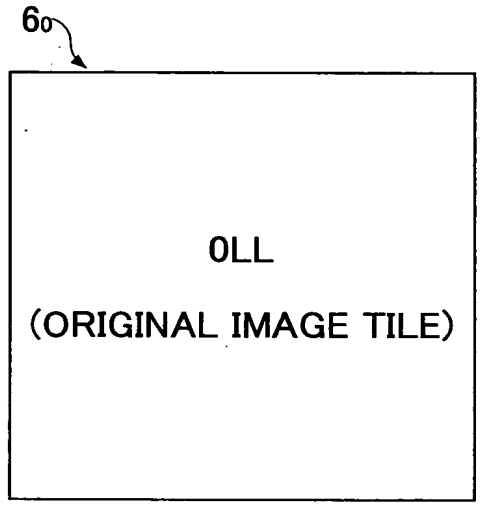
COLOR CONVERSION (S2)

WAVELET TRANSFORM (S3)

PROGRESSIVE SUB-BIT-PLANE CODING (S4)

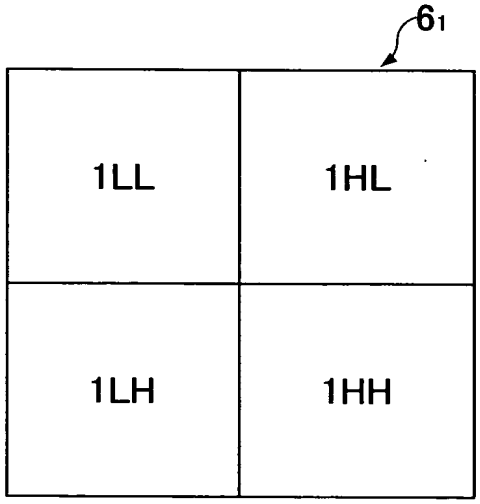
ENTROPY CODING (S5)

FIG.3A



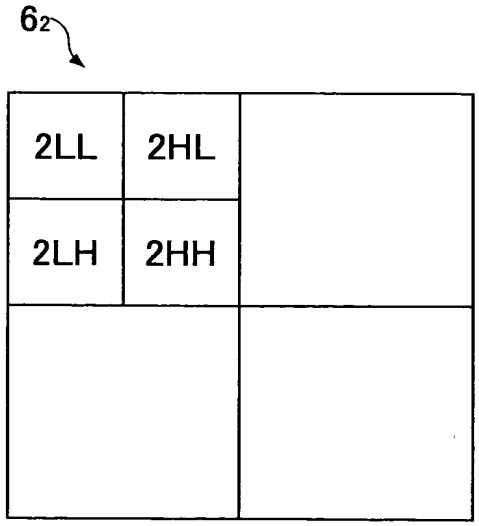
DECOMPOSITION_LEVEL_0

FIG.3B



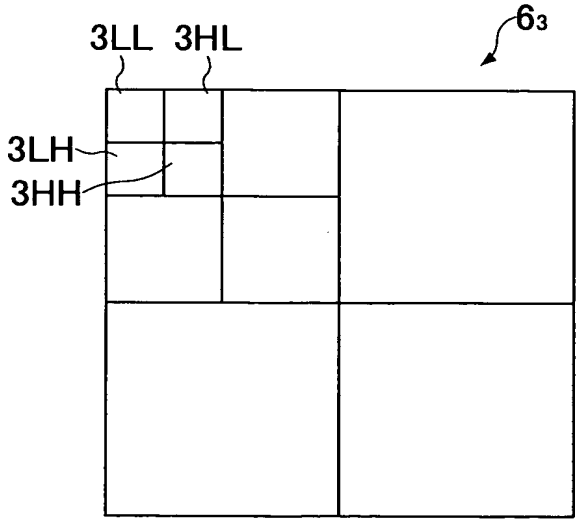
DECOMPOSITION_LEVEL_1

FIG.3C



DECOMPOSITION_LEVEL_2

FIG.3D



DECOMPOSITION_LEVEL_3

FIG.4

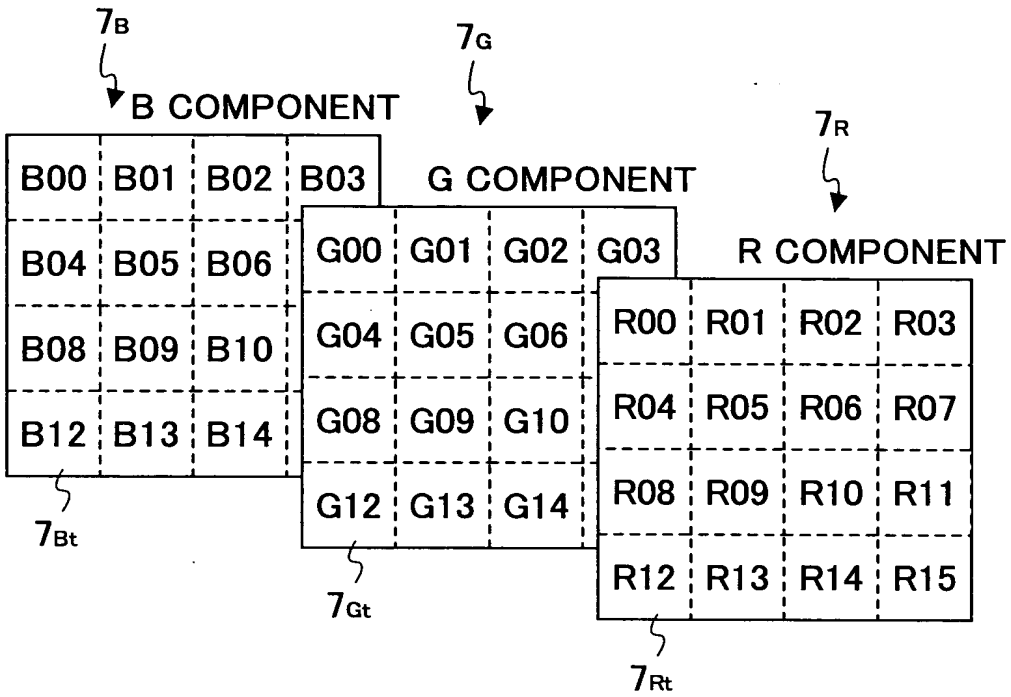

7B
B COMPONENT
7G
G COMPONENT
7R
R COMPONENT
B00 B01 B02 B03
B04 B05 B06
B08 B09 B10
B12 B13 B14
7Bt
G00 G01 G02 G03
G04 G05 G06
G08 G09 G10
G12 G13 G14
7Gt
R00 R01 R02 R03
R04 R05 R06 R07
R08 R09 R10 R11
R12 R13 R14 R15
7Rt

FIG.5

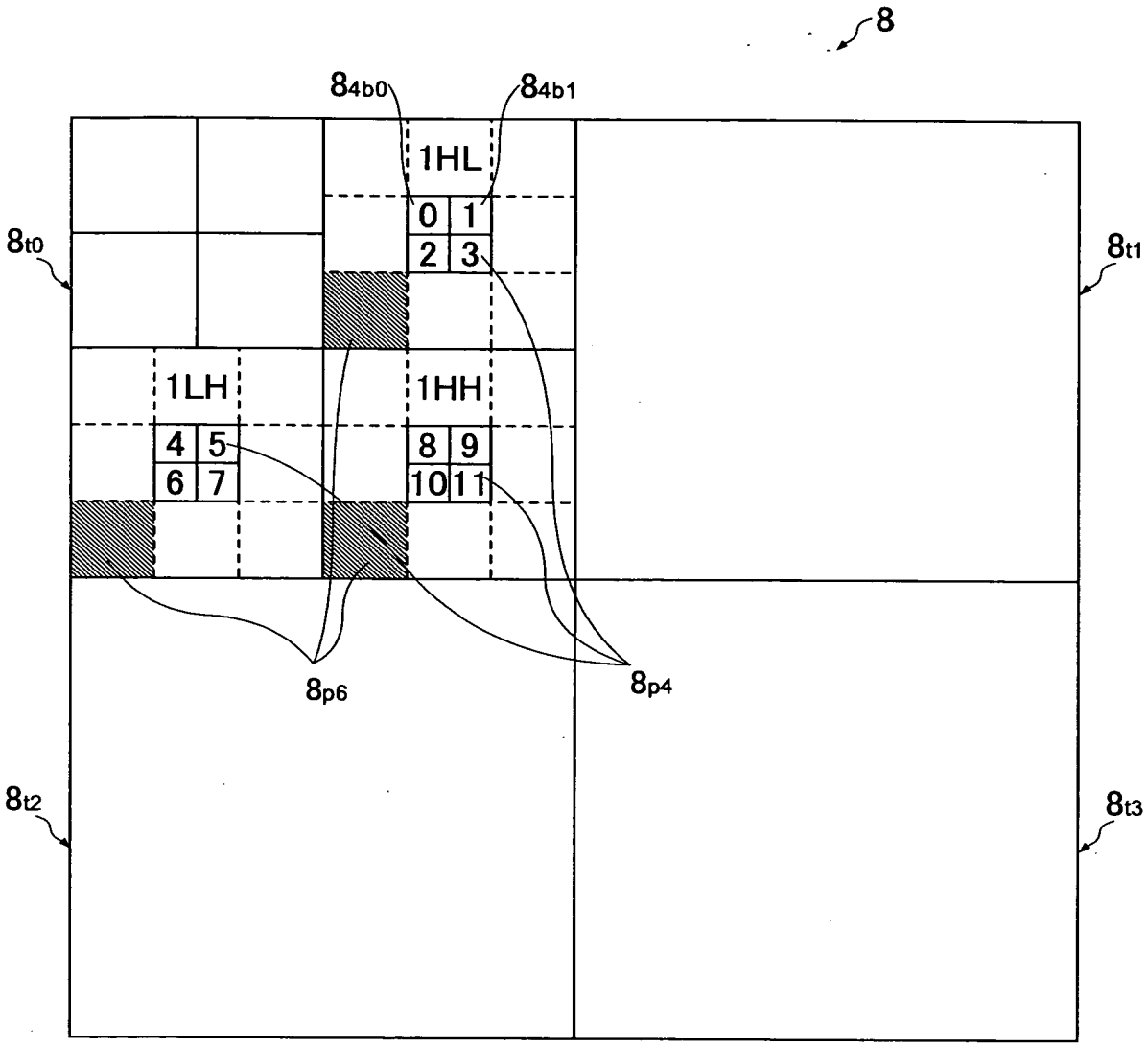

8
84b0
84b1
1HL
0 1
2 3
8t0
8t1
1LH
1HH
4 5
6 7
8 9
10 11
8p6
8p4
8t2
8t3

FIG.6

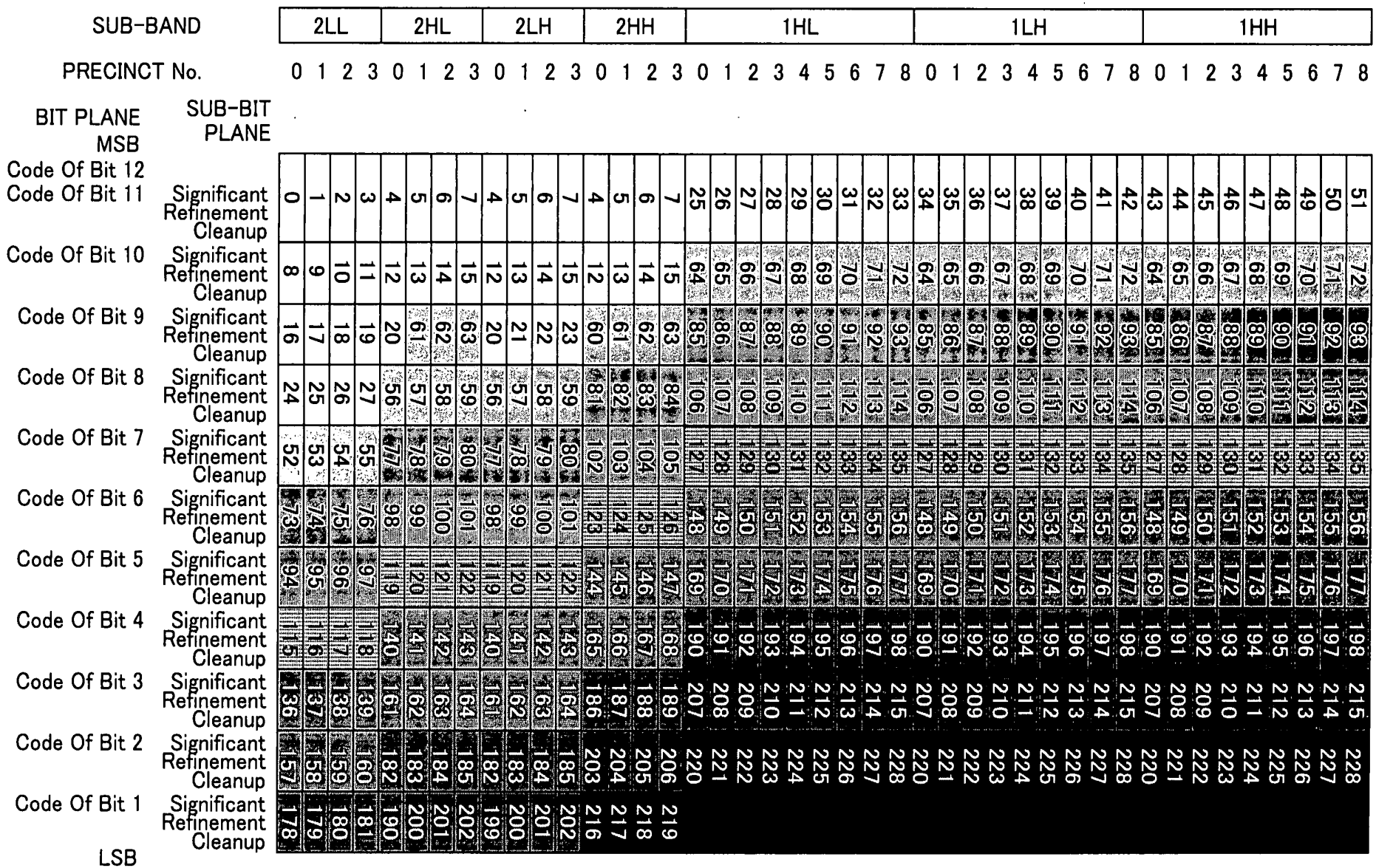

SUB-BAND
2LL
2HL
2LH
2HH
1HL
1LH
1HH
PRECINCT No.
0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 4 5 6 7 8 0 1 2 3 4 5 6 7 8 0 1 2 3 4 5 6 7 8
BIT PLANE
MSB
SUB-BIT PLANE
Code Of Bit 12
Code Of Bit 11
Code Of Bit 10
Code Of Bit 9
Code Of Bit 8
Code Of Bit 7
Code Of Bit 6
Code Of Bit 5
Code Of Bit 4
Code Of Bit 3
Code Of Bit 2
Code Of Bit 1
LSB
Significant
Refinement
Cleanup

FIG.7

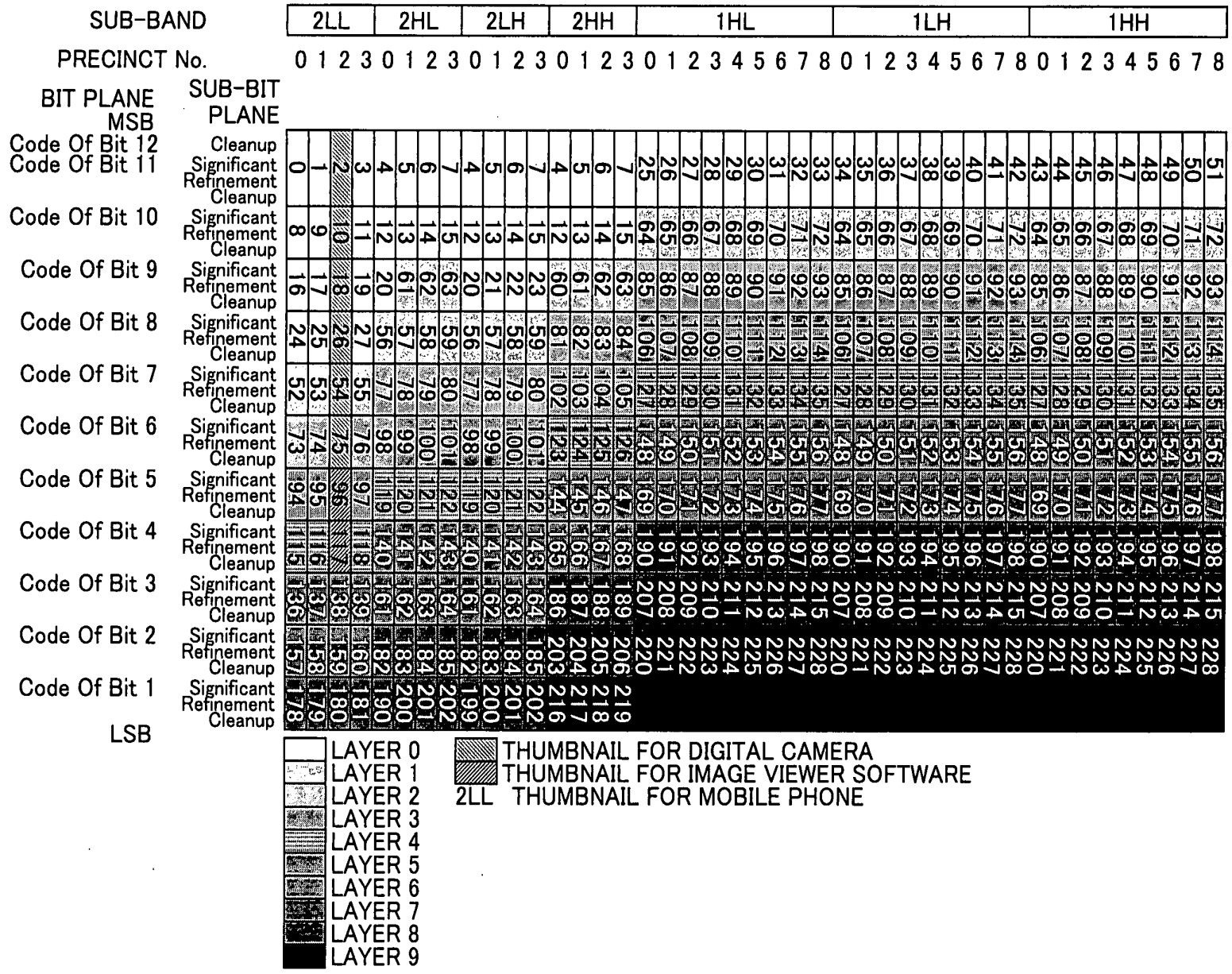

SUB-BAND
2LL
2HL
2LH
2HH
1HL
1LH
1HH
PRECINCT No.
0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 0 1 2 3 4 5 6 7 8 0 1 2 3 4 5 6 7 8 0 1 2 3 4 5 6 7 8
BIT PLANE
MSB
SUB-BIT PLANE
Code Of Bit 12
Code Of Bit 11
Code Of Bit 10
Code Of Bit 9
Code Of Bit 8
Code Of Bit 7
Code Of Bit 6
Code Of Bit 5
Code Of Bit 4
Code Of Bit 3
Code Of Bit 2
Code Of Bit 1
LSB
Cleanup
Significant
Refinement
Cleanup
LAYER 0
LAYER 1
LAYER 2
LAYER 3
LAYER 4
LAYER 5
LAYER 6
LAYER 7
LAYER 8
LAYER 9
THUMBNAIL FOR DIGITAL CAMERA
THUMBNAIL FOR IMAGE VIEWER SOFTWARE
2LL THUMBNAIL FOR MOBILE PHONE

FIG.8

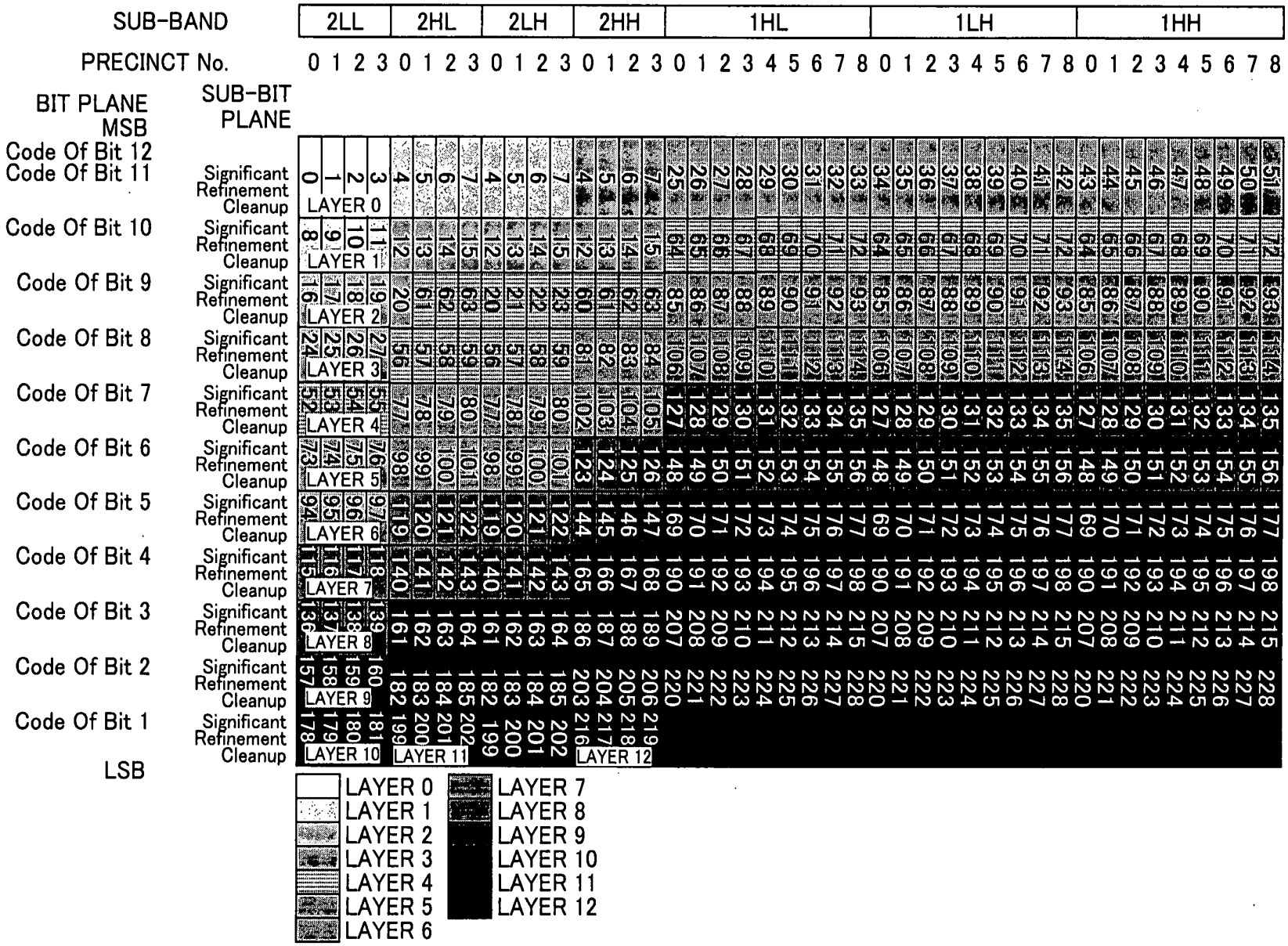

SUB-BAND
2LL
2HL
2LH
2HH
1HL
1LH
1HH
PRECINCT No.
BIT PLANE
MSB
SUB-BIT PLANE
Code Of Bit 12
Code Of Bit 11
Code Of Bit 10
Code Of Bit 9
Code Of Bit 8
Code Of Bit 7
Code Of Bit 6
Code Of Bit 5
Code Of Bit 4
Code Of Bit 3
Code Of Bit 2
Code Of Bit 1
LSB
Significant
Refinement
Cleanup
LAYER 0
LAYER 1
LAYER 2
LAYER 3
LAYER 4
LAYER 5
LAYER 6
LAYER 7
LAYER 8
LAYER 9
LAYER 10
LAYER 11
LAYER 12

FIG.9

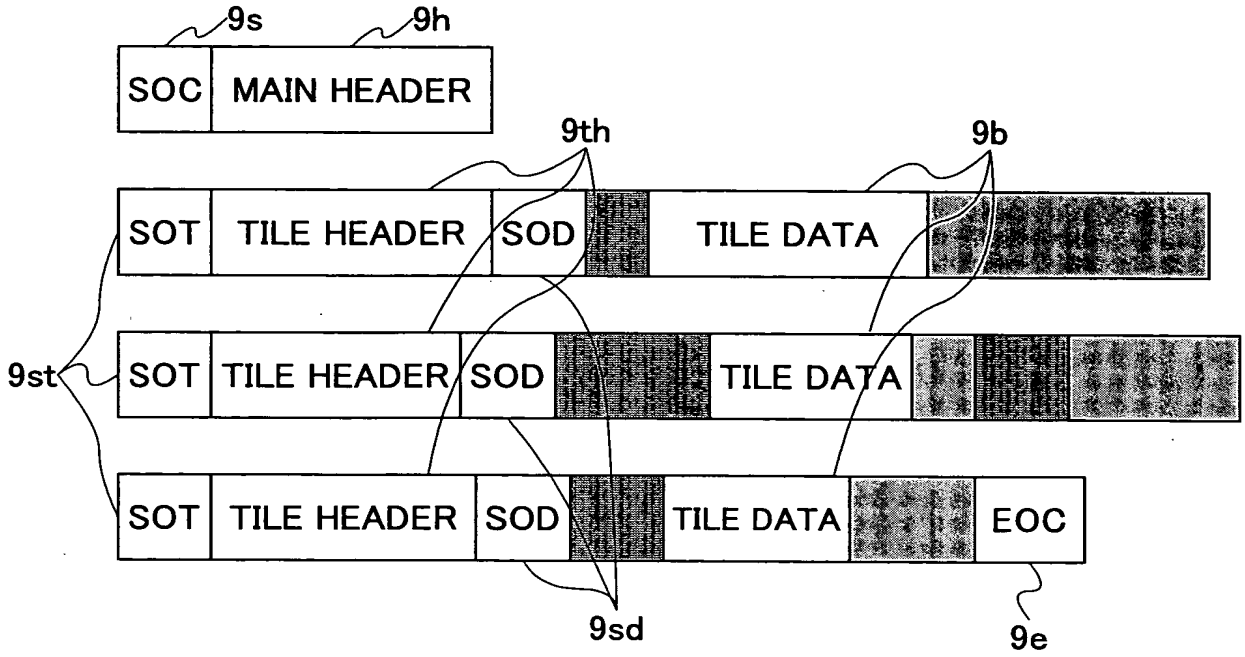

9s
9h
SOC
MAIN HEADER
9th
9b
SOT
TILE HEADER
SOD
TILE DATA
9st
SOT
TILE HEADER
SOD
TILE DATA
SOT
TILE HEADER
SOD
TILE DATA
EOC
9sd
9e

FIG.10

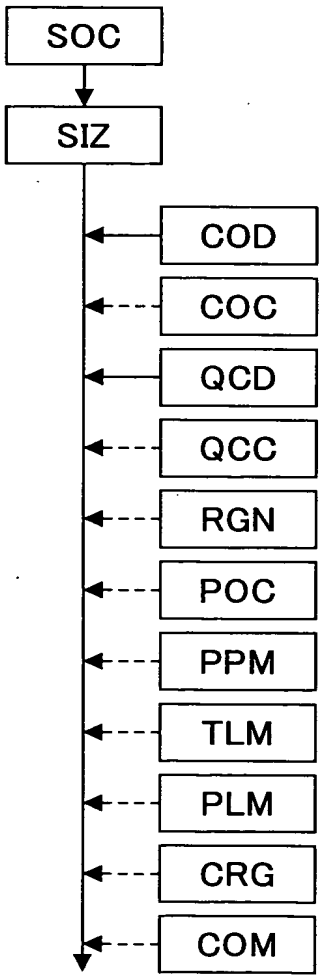

SOC
SIZ
COD
COC
QCD
QCC
RGN
POC
PPM
TLM
PLM
CRG
COM

FIG.11

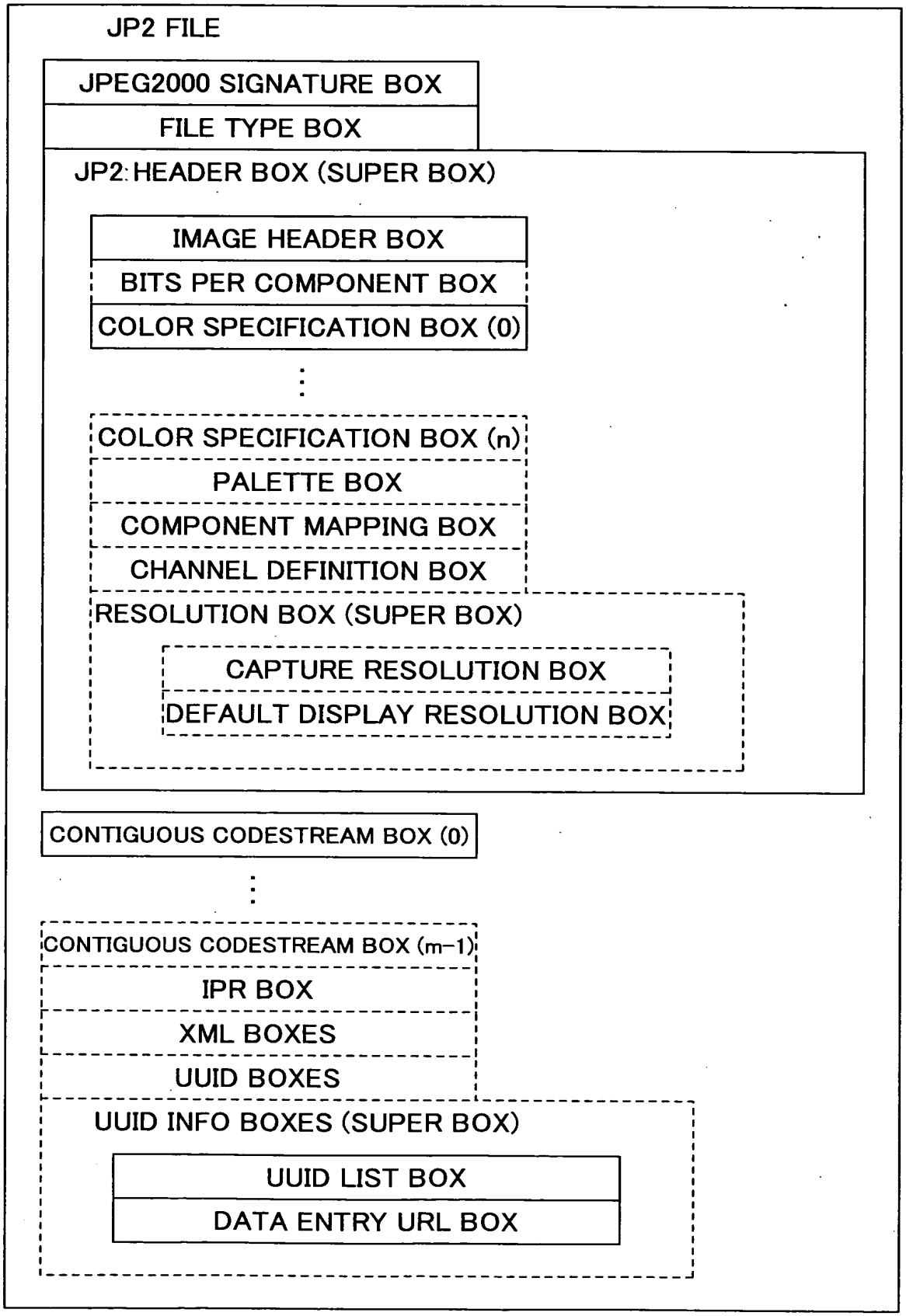

JP2 FILE
JPEG2000 SIGNATURE BOX
FILE TYPE BOX
JP2 HEADER BOX (SUPER BOX)
IMAGE HEADER BOX
BITS PER COMPONENT BOX
COLOR SPECIFICATION BOX (0)
COLOR SPECIFICATION BOX (n)
PALETTE BOX
COMPONENT MAPPING BOX
CHANNEL DEFINITION BOX
RESOLUTION BOX (SUPER BOX)
CAPTURE RESOLUTION BOX
DEFAULT DISPLAY RESOLUTION BOX
CONTIGUOUS CODESTREAM BOX (0)
CONTIGUOUS CODESTREAM BOX (m-1)
IPR BOX
XML BOXES
UUID BOXES
UUID INFO BOXES (SUPER BOX)
UUID LIST BOX
DATA ENTRY URL BOX

FIG.12

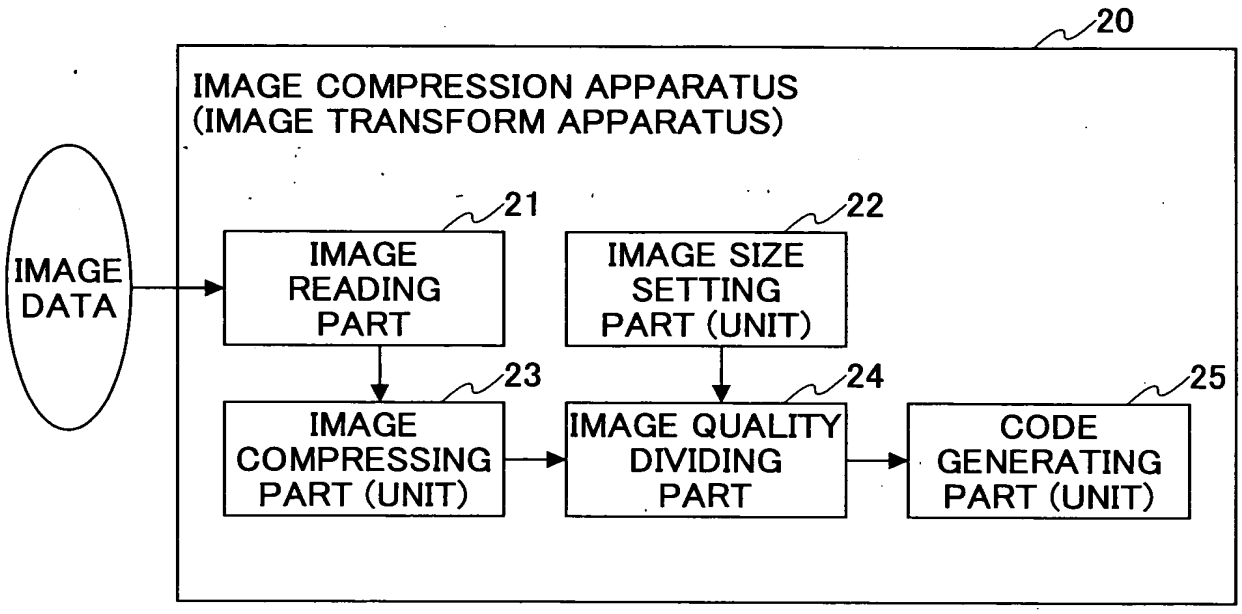

20
IMAGE COMPRESSION APPARATUS
(IMAGE TRANSFORM APPARATUS)
IMAGE DATA
21
IMAGE READING PART
22
IMAGE SIZE SETTING PART (UNIT)
23
IMAGE COMPRESSING PART (UNIT)
24
IMAGE QUALITY DIVIDING PART
25
CODE GENERATING PART (UNIT)

FIG.13

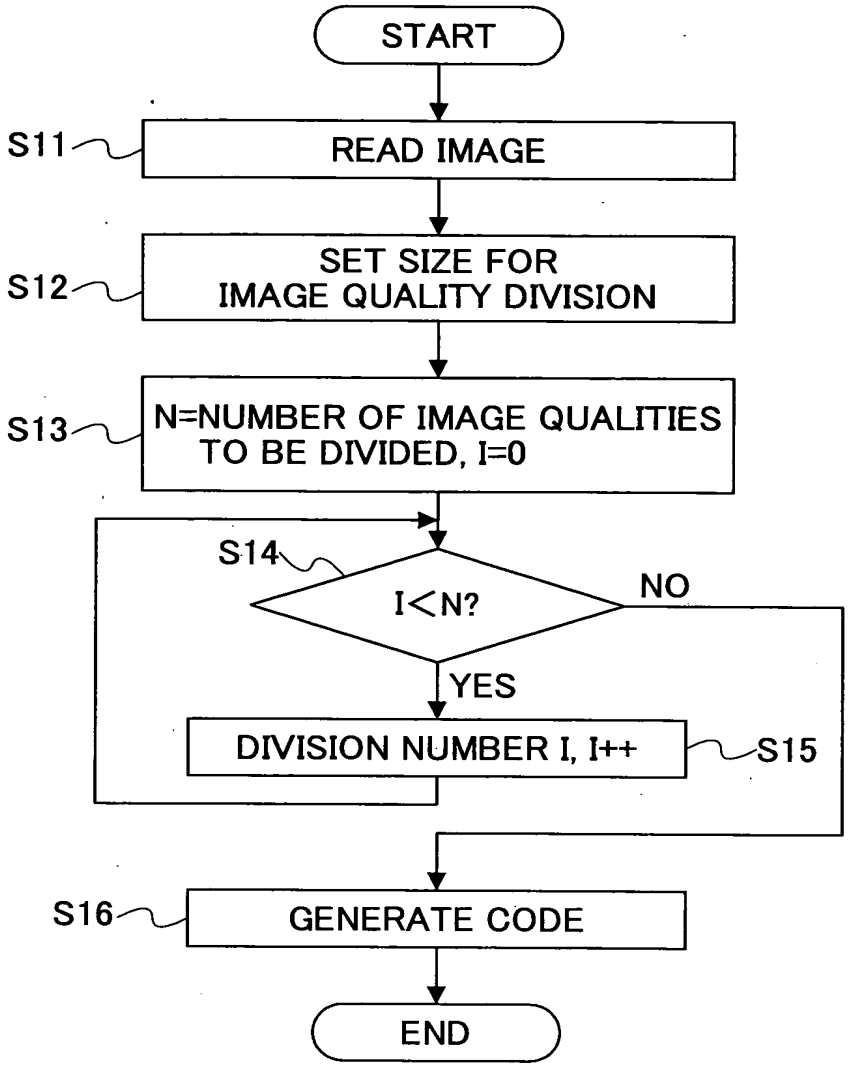

START
S11
READ IMAGE
S12
SET SIZE FOR IMAGE QUALITY DIVISION
S13
N=NUMBER OF IMAGE QUALITIES TO BE DIVIDED, I=0
S14
I<N?
NO
YES
DIVISION NUMBER I, I++
S15
S16
GENERATE CODE
END

FIG.14

30

31 CAPACITY OF TRANSMISSION LINE (bps)	32 IMAGE QUALITY LEVEL
1G	LAYER 0
100M	LAYER 2
10M	LAYER 4
8M	LAYER 5
1M	LAYER 7
5.6K	LAYER 10

FIG.15

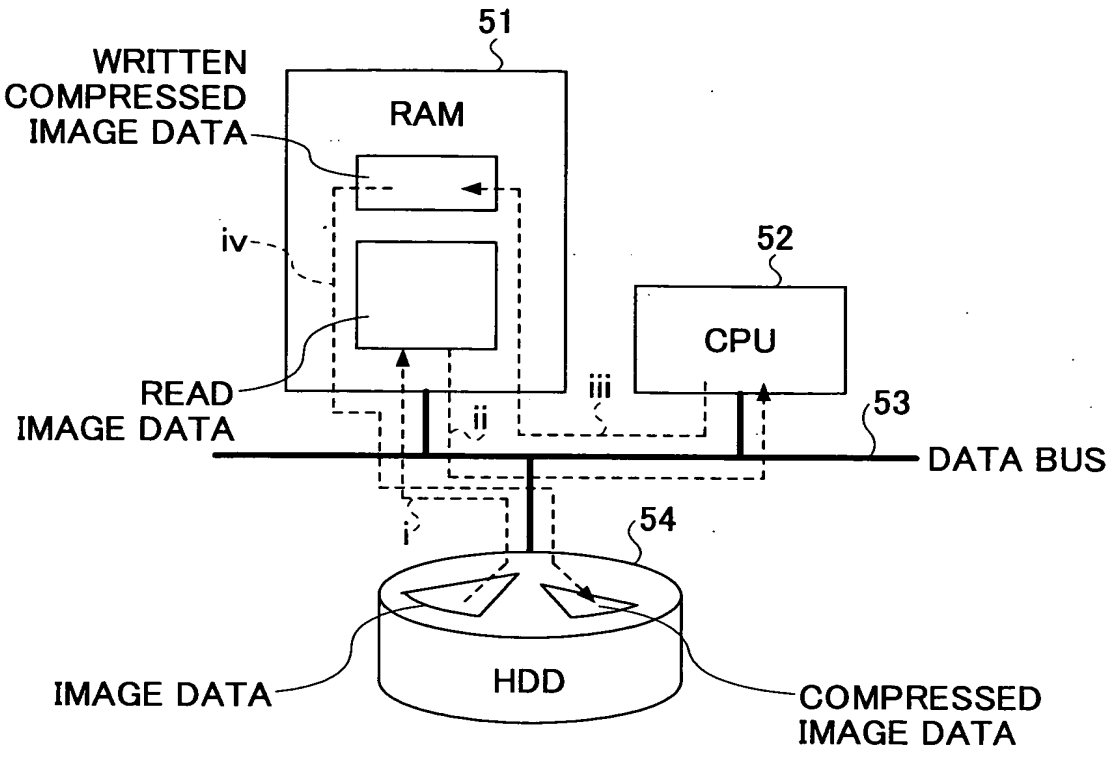
FIG.16A

FIG.16B

FIG.16C

FIG.16D

FIG.17


51
WRITTEN
COMPRESSED
IMAGE DATA
RAM
iv
52
CPU
READ
IMAGE DATA
ii
iii
53
DATA BUS
i
54
IMAGE DATA
HDD
COMPRESSED
IMAGE DATA